

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Previously Presented) A method of depositing a layer comprising:
forming a first function region comprising a first organic compound on an electrode during irradiation with light in a deposition chamber;
forming a mixed region comprising the first organic compound and a second organic compound on the first function region during irradiation with light in the deposition chamber;
and
forming a second function region comprising the second organic compound on the mixed region during irradiation with light in the deposition chamber.
2. (Previously Presented) A method of depositing a layer according to claim 1, wherein a direction of irradiation with light is the same as a direction of evaporating of the first organic compound and the second organic compound.
3. (Original) A method of depositing a layer according to claim 1, wherein an evaporation source from which the first organic compound is evaporated is differ from a evaporation source from which the second organic compound is evaporated.
4. (Original) A method of depositing a layer according to claim 1, wherein the first organic compound is evaporated from a first evaporation source and the second organic compound is evaporated from a second evaporation source.
5. (Original) A method of depositing a layer according to claim 4, wherein the first evaporation source and the second evaporation source are each provided in plurality.

6. (Original) A method of depositing a layer according to claim 4, wherein the first organic compound and the second organic compound are continuously deposited as continuously operating the first evaporation source and the second evaporation source.

7. (Original) A method of depositing a layer according to claim 4, wherein the mixed region is formed as simultaneously operating the first evaporation source and the second evaporation source.

8. (Currently Amended) A method of depositing a layer according to claim [[1]] 4, wherein the light is irradiated from a light source; and wherein the light source, the first evaporation source, and the second evaporation source are on a same plane.

9. (Original) A method of depositing a layer according to claim 1, wherein the light uses an ultraviolet ray.

10. (Previously Presented) A method of depositing a layer according to claim 1, wherein the light has a wavelength of 100 to 300 nm.

11. (Original) A method of depositing a layer according to claim 8, wherein the light source is a low-pressure mercury lamp.

12-18. (Canceled)

19. (Previously Presented) A method of depositing a layer comprising:
forming a first function region comprising a first organic compound evaporated from a first evaporation source over an electrode in a deposition chamber during irradiation with light;

forming a mixed region comprising the first organic compound evaporated from the first evaporation source and a second organic compound evaporated from a second evaporation source on the first function region in the deposition chamber during irradiation with light;

forming a second function region comprising the second organic compound evaporated from the second evaporation source but not from the first evaporation source on the mixed region in the deposition chamber during irradiation with light.

20. (Previously Presented) A method of depositing a layer in a deposition apparatus, the deposition apparatus comprising:
a load chamber;
an alignment chamber;
a first deposition chamber for forming an organic compound layer on a first electrode, prepared with a first and a second evaporation sources and a light source;
a cleaning preliminary chamber;
a second deposition chamber for forming a second electrode; and
a sealing chamber,
wherein the first evaporation source comprises a first organic compound; and
wherein the second evaporation source comprises a second organic compound;
the method comprising:

forming a first function region comprising the first organic compound evaporated from the first evaporation source over the first electrode in the first deposition chamber during irradiation with light from the light source;

forming a mixed region comprising the first organic compound evaporated from the first evaporation source and the second organic compound evaporated from the second evaporation source on the first function region in the first deposition chamber during irradiation with light from the light source;

forming a second function region comprising the second organic compound evaporated from the second evaporation source but not from the first evaporation source on the mixed region in the first deposition chamber during irradiation with light from the light source.

21-23. (Canceled)

24. (Previously Presented) A method of depositing a layer according to claim 19, wherein a direction of irradiation with light is the same as a direction of evaporating of the first organic compound and the second organic compound.

25. (Previously Presented) A method of depositing a layer according to claim 19, wherein the first evaporation source and the second evaporation source are each provided in plurality.

26. (Previously Presented) A method of depositing a layer according to claim 19, wherein the light is irradiated from a light source; and wherein the light source, the first evaporation source, and the second evaporation source are on a same plane.

27. (Previously Presented) A method of depositing a layer according to claim 19, wherein the light uses an ultraviolet ray.

28. (Previously Presented) A method of depositing a layer according to claim 19, wherein the light has a wavelength of 100 nm to 300 nm.

29. (Previously Presented) A method of depositing a layer according to claim 26, wherein the light source is a low-pressure mercury lamp.

30. (Previously Presented) A method of depositing a layer according to claim 20, wherein

a light irradiated from the light source is an ultraviolet ray.

31. (Previously Presented) A method of depositing a layer according to claim 20, wherein the light source is a low-pressure mercury lamp.

32. (Previously Presented) A method of depositing a layer according to claim 20, wherein a light irradiated from the light source has a wavelength of 100 nm to 300 nm.

33. (Previously Presented) A method of depositing a layer comprising:
forming a first function region comprising a first organic compound on an electrode in a deposition chamber;
forming a mixed region comprising the first organic compound and a second organic compound on the first function region during irradiation with light in the deposition chamber;
and
forming a second function region comprising the second organic compound on the mixed region in the deposition chamber,
wherein the mixed region includes organic compound molecules; and
wherein the light is irradiated to the mixed region so as to activate the organic compound molecules and promote for compact film formation.

34. (Previously Presented) A method of depositing a layer according to claim 33, wherein a direction of irradiation with light is the same as a direction of evaporating of the first organic compound and the second organic compound.

35. (Previously Presented) A method of depositing a layer according to claim 33, wherein an evaporation source from which the first organic compound is evaporated is differ from a evaporation source from which the second organic compound is evaporated.

36. (Previously Presented) A method of depositing a layer according to claim 33, wherein the first organic compound is evaporated from a first evaporation source and the second organic compound is evaporated from a second evaporation source.

37. (Previously Presented) A method of depositing a layer according to claim 36, wherein the first evaporation source and the second evaporation source are each provided in plurality.

38. (Previously Presented) A method of depositing a layer according to claim 36, wherein the first organic compound and the second organic compound are continuously deposited as continuously operating the first evaporation source and the second evaporation source.

39. (Previously Presented) A method of depositing a layer according to claim 36, wherein the mixed region is formed as simultaneously operating the first evaporation source and the second evaporation source.

40. (Previously Presented) A method of depositing a layer according to claim 33, wherein the light is irradiated from a light source; and wherein the light source, the first evaporation source, and the second evaporation source are on a same plane.

41. (Previously Presented) A method of depositing a layer according to claim 33, wherein the light uses an ultraviolet ray.

42. (Previously Presented) A method of depositing a layer according to claim 33, wherein the light has a wavelength of 100 nm to 300 nm.

43. (Previously Presented) A method of depositing a layer according to claim 40, wherein the light source is a low-pressure mercury lamp.

44. (Previously Presented) A method of depositing a layer comprising:
forming a first function region comprising a first organic compound evaporated from a first evaporation source over an electrode in a deposition chamber;
forming a mixed region comprising the first organic compound evaporated from the first evaporation source and a second organic compound evaporated from a second evaporation source on the first function region in the deposition chamber during irradiation with light;
forming a second function region comprising the second organic compound evaporated from the second evaporation source but not from the first evaporation source on the mixed region in the deposition chamber,
wherein the mixed region includes organic compound molecules; and
wherein the light is irradiated to the mixed region so as to activate the organic compound molecules and promote for compact film formation.

45. (Previously Presented) A method of depositing a layer according to claim 44, wherein a direction of irradiation with light is the same as a direction of evaporating of the first organic compound and the second organic compound.

46. (Previously Presented) A method of depositing a layer according to claim 44, wherein the first evaporation source and the second evaporation source are each provided in plurality.

47. (Previously Presented) A method of depositing a layer according to claim 44,
wherein the light is irradiated from a light source; and
wherein the light source, the first evaporation source, and the second evaporation source are on a same plane.

48. (Previously Presented) A method of depositing a layer according to claim 44, wherein the light uses an ultraviolet ray.

49. (Previously Presented) A method of depositing a layer according to claim 44, wherein the light has a wavelength of 100 nm to 300 nm.

50. (Previously Presented) A method of depositing a layer according to claim 47, wherein the light source is a low-pressure mercury lamp.

51. (Previously Presented) A method of depositing a layer in a deposition apparatus, the deposition apparatus comprising:
a load chamber;
an alignment chamber;
a first deposition chamber for forming an organic compound layer on a first electrode, prepared with a first and a second evaporation sources and a light source;
a cleaning preliminary chamber;
a second deposition chamber for forming a second electrode; and
a sealing chamber,
wherein the first evaporation source comprises a first organic compound; and
wherein a second evaporation source comprises a second organic compound;
the method comprising:
forming a first function region comprising the first organic compound evaporated from the first evaporation source over the first electrode in the first deposition chamber;
forming a mixed region comprising the first organic compound evaporated from the first evaporation source and the second organic compound evaporated from the second evaporation source on the first function region in the first deposition chamber during irradiation with light from the light source; and
forming a second function region comprising the second organic compound evaporated from the second evaporation source but not from the first evaporation source on the mixed region in the first deposition chamber,

wherein the mixed region includes organic compound molecules; and
wherein the light is irradiated to the mixed region so as to activate the organic compound molecules and promote for compact film formation.

52. (Previously Presented) A method of depositing a layer according to claim 51, wherein a light irradiated from the light source is an ultraviolet ray.

53. (Previously Presented) A method of depositing a layer according to claim 51, wherein the light source is a low-pressure mercury lamp.

54. (Previously Presented) A method of depositing a layer according to claim 51, wherein a light irradiated from the light source has a wavelength of 100 nm to 300 nm.